State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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TO: Minerals File

FROM: Holland Shepherd, Senior Reclamation Specialist HLS

RE: Meeting With Division of Water Quality and Tenneco Minerals, Emergency Discharge Situation, Goldstrike Mine Site, Tenneco Minerals, Inc., M/053/005, Washington County, Utah

Date of Meeting: February 2, 1993
Time of Meeting: 2:30 - 5:00 p.m.
Participants: Loyd Stuart, Dan Slider, Jim Smith, Robert Wilson, Tenneco; Bob Bayer, JBR; Don Ostler, Fred Pearson, Larry Mize, Lyle Stott, DWQ; Wayne Thomas, Southwest District Health; Holland, DOGM

This meeting was held to discuss the problems that Tenneco is encountering with the unusual rainfall situation at the Goldstrike site. Also, the discussion involved a proposal from the operator regarding mitigative steps to prevent future emergency discharges.

The operator proposed two procedures to address excess rainfall at the site: 1. remove excess water from the storage ponds and utilize this water for dust control on the haul roads. Also, some of the water could be used during crushing of the ore; 2. obtain an NPDES permit to discharge water, in the event of an extreme emergency.

The Goldstrike mine constructed a 3 million gallon excess water storage pond, last fall of 92. The pond was constructed to contain water generated during extreme back-to-back rainfall events, predicted to occur in early Spring. The pond is already full after the site received over 13 inches of rain since January 1, 1993.

The operator just completed another emergency storage pond, which contains 3.7 million gallons of water; it is now about half full. The operator indicated

that out of an 11 million gallon storage capacity, there is only about 3 million gallons left. More storms and much more water is anticipated for February through April.

The operator proposed mitigating the present situation by taking water out of the emergency storage ponds and applying it for dust control and crusher use. The consumptive use of water in this fashion would be 100,000 gallons per day or 3 million gallons per month. Utilizing water in this fashion would only take place when the water storage was reaching a critical point. Otherwise, the operator will continue to use fresh unprocessed water for dust control. The process water, used for this application would be treated with chlorine gas to kill the cyanide levels down to .5 or .2 ppm free cyanide.

The operator also asked to be granted an NPDES discharge permit, which would be used only in extreme emergencies. Process water would be discharged only in situations where it was absolutely necessary. The water would be treated prior to discharge and only discharged during acceptable stream flow situations.

At this point, Water Quality has not issued any NPDES permits to a cyanide operation in the state of Utah. To issue one to Tenneco would set a precedent that was of concern to DWQ. Using the process solutions on the road would require an amendment to the operator's groundwater permit.

The parameters of concern in any discharges would involve: cyanide, metal and salts. The salt would probably be the only parameter of concern for the consumptive use proposal. Salt build up in the soils could present a revegetation problem in the future. DWQ was also concerned of salt impacts to the groundwater.

DWQ indicated that the operator could submit an application for a NPDES permit, which would go through staff and public review. Also, DWQ indicated that they would accept a proposal to amend the groundwater discharge permit. This would also involve staff review and public comment.

We asked the question of constructing another pond, which was an option the operator had been considering. The operator has apparently dropped this idea, because of the extreme expense in doing so and the lack of space to put it at the mine site.

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